2011, of no more than $4.5 billion. The total $4.5 billion budget will include CAF support resulting from intercarrier compensation reform, as well as new CAF funding for broadband and support for legacy programs during a transitional period.

10. In the Order, the Commission adopts rules that transform the existing high-cost program—the component of USF directed toward high-cost, rural, and insular areas—into a new, more efficient, broadband-focused Connect America Fund (CAF). In particular, we adopt a framework for the Connect America Fund that will provide support in price cap territories based on a combination of competitive bidding and a forward-looking cost model.

11. In order to take immediate steps to accelerate broadband deployment to unserved areas across America, we modify our rules to provide support to price cap carriers under a transitional distribution mechanism, CAF Phase I, while the cost model is being developed and competitive bidding rules finalized. Specifically, effective in 2012, we freeze support to price cap carriers and their rate-of-return affiliates under our existing high-cost support mechanism: high-cost loop support (HCLS) including safety net additive (SNA), forward-looking model support, local switching support (LSS), interstate access support (IAS), and frozen interstate common line support (ICLS).[9] In addition, we will dedicate up to $300 million in incremental support to price cap carriers each year of CAF Phase I, allocated to carriers serving areas with the highest costs; carriers accepting incremental support will be required to meet defined broadband deployment obligations.[10]

12. We adopt an approach that enables competitive bidding for CAF Phase II support in the near-term in some price cap areas, while in other areas holding the incumbent carrier to broadband and other public interest obligations over large geographies in return for five years of CAF support. Specifically, we adopt the following methodology for providing CAF support in price cap areas. First, the Commission will model forward-looking costs to estimate the cost of deploying broadband-capable networks in high-cost areas and identify at a granular level the areas where support will be available. Second, using the cost model, the Commission will offer each price cap LEC annual support for a period of five years in exchange for a commitment to offer voice across its service territory within a state and broadband service to supported locations within that service territory, subject to robust public interest obligations and accountability standards. Third, for all territories for which price cap LECs decline to make that commitment, the Commission will award ongoing support through a competitive bidding mechanism.

13. We reform legacy support mechanisms for rate-of-return carriers to transition towards a more incentive-based form of regulation with better incentives for efficient operations. In particular, we implement a number of reforms to eliminate waste and inefficiency and improve incentives for rational investment and operation by rate-of-return LECs. Consistent with the framework we establish for support in price cap territories that combines a new forward-looking cost model and competitive bidding, we also lay the foundation for subsequent Commission action that will advance rate-of-return companies on a path toward a more incentive-based form of regulation.[11]

14. We adopt the following reforms that will ensure that the overall size of the Fund is kept within budget while we transition a system that supports only telephone service to a system that will enable the deployment of modern high-speed networks capable of delivering 21st century broadband services and applications, including voice: First, we establish benchmarks that, for the first time, will establish parameters for what actual costs carriers may seek recovery under the federal universal service

[9] *See supra* Section VII.C.

[10] *See id.*

[11] *See supra* Section VII.D.

program. Second, we take immediate steps to ensure that carriers in rural areas are not unfairly burdening consumers across the nation by using excess universal service support to subsidize artificially low end-user rates. Third, we eliminate the safety net additive program, which is no longer meeting its intended purpose. Fourth, we eliminate local switching support in July 2012 whereby recovery for switching investment will occur through the ICC recovery mechanism. Fifth, we eliminate support for rate-of-return companies in any study area that is completely overlapped by an unsubsidized facilities-based terrestrial competitor that offers fixed voice as well as broadband services meeting specified performance standards, as there is no need for universal service subsidies in these cases. Sixth, starting January 1, 2012, support in excess of $250 per line per month will no longer be provided to any carrier.[12]

15. We eliminate the identical support rule. Over a decade of experience with the operation of the current rule and having received a multitude of comments noting that the current rule fails to efficiently target support where it is needed, we conclude that this rule has not functioned as intended. Identical support does not provide appropriate levels of support for the efficient deployment of mobile services in areas that do not support a private business case for mobile voice and broadband. Because the explicit support for mobility that we adopt today will be designed to appropriately target funds to such areas, the identical support rule is no longer necessary or in the public interest.[13]

16. We transition existing competitive ETC support to the CAF, including our reformed system for supporting mobile service over a five-year period beginning July 1, 2012. We find that a transition is desirable in order to avoid shocks to service providers that may result in service disruptions for consumers. During this period, competitive ETCs offering mobile wireless services will have the opportunity to bid in the Mobility Fund Phase I auction in 2012 and participate in the second phase of the Mobility Fund in 2013. Competitive ETCs offering broadband services that meet the performance standards described above will also have the opportunity to participate in competitive bidding for CAF support in areas where price cap companies decline to make a state-level broadband commitment in exchange for model-determined support in 2013. With these new funding opportunities, many carriers, including wireless carriers, could receive similar or even greater amounts of funding after our reforms than before, albeit with that funding more appropriately targeted to the areas that need additional support.[14]

17. For the purpose of this transition, we conclude that each competitive ETC's baseline support amount will be equal to its total 2011 support in a given study area, or an amount equal to $3,000 times the number of reported lines as of year-end 2011, whichever is lower. Using a full calendar year of support to set the baseline will provide a reasonable approximation of the amount that competitive ETCs would currently expect to receive, absent reform, and a natural starting point for the phase-down of support. In addition, we limit the baseline to $3,000 per line in order to reflect similar changes to our rules limiting support for incumbent wireline carriers to $3,000 per line per year.[15]

18. Competitive ETC support per study area will be frozen at the 2011 baseline, and that monthly baseline amount will be provided from January 1, 2012 to June 30, 2012. Each competitive ETC will then receive 80 percent of its monthly baseline amount from July 1, 2012 to June 30, 2013, 60 percent of its baseline amount from July 1, 2013, to June 30, 2014, 40 percent from July 1, 2014, to June 30, 2015, 20 percent from July 1, 2015, to June 30, 2016, and no support beginning July 1, 2016. The purpose of this phase down is to avoid unnecessary consumer disruption as we transition to new programs that will

[12] *See id.*

[13] *See Supra* Section VII.E.4.

[14] *See Supra* Section VII.E.5.

[15] *Id.*

be better designed to achieve universal service goals, especially with respect to promoting investment in and deployment of mobile service to areas not yet served. We do not wish to encourage further investment based on the inefficient subsidy levels generated by the identical support rule. We conclude that phasing down and transitioning existing competitive support will not create significant or widespread risks that consumers in areas that currently have service, including mobile service, will be left without any viable mobile service provider serving their area. We do, however, delay by two years the phasedown for certain carriers serving remote parts of Alaska and a Tribally-owned competitive ETC, Standing Rock Telecommunications, that received its ETC designation in 2011.[16]

19. We establish the Mobility Fund based on our conclusion that mobile voice and broadband services provide unique consumer benefits and that promoting the universal availability of advanced mobile services is a vital component of the Commission's universal service mission. The Mobility Fund, which will have two phases, will allow funding for mobility while rationalizing how universal service funding is provided, thereby ensuring that funds are cost-effective and targeted to areas that require public funding to receive the benefits of mobility.[17] The purpose of the Mobility Fund is to accelerate the deployment of advanced mobile networks in areas where a private-sector business case is lacking. Mobility Fund recipients will be subject to public interest obligations, including data roaming and collocation requirements.

20. The first phase of the Mobility Fund will provide $300 million in one-time support to immediately accelerate deployment of networks for mobile broadband services in unserved areas. Mobility Fund Phase I support will be awarded through a nationwide reverse auction. Eligible areas will include census blocks unserved today by advanced mobile wireless services. Carriers will be prohibited from receiving support for areas they have previously stated they plan to cover. The auction will maximize coverage of unserved road miles, with the lowest per-unit bids winning. A 25 percent bidding credit will be available for Tribally-owned or controlled providers that participate in the auction and place bids for the eligible census blocks located within the geographic area defined by the boundaries of the Tribal land associated with the Tribal entity seeking support. The auction will also help the Commission develop expertise in running reverse auctions for universal service support. We expect to distribute this support as quickly as feasible, with the goal of holding an auction in the third quarter of 2012. As part of this first phase, we also establish a separate and complementary one-time Tribal Mobility Fund Phase I to award $50 million in additional universal service funding for advanced mobile services on Tribal lands and Alaska Native regions.[18] We do so in order to accelerate mobile broadband availability in these remote and underserved areas.

21. We also establish a Mobility Fund Phase II, which will provide up to $500 million per year in ongoing support to ensure universal availability of advanced mobile services.[19] The Fund will expand and sustain mobile voice and broadband service in communities in which service would be unavailable absent federal support. The Mobility Fund Phase II will include ongoing support for Tribal lands of up to $100 million per year, as part of the $500 million total budget. We also establish a budget of at least $100 million annually for CAF support in remote areas. This reflects our commitment to ensuring that Americans living in the most remote areas of the nation, where the cost of deploying wireline or cellular terrestrial broadband technologies is extremely high, can obtain affordable broadband through alternative technology platforms such as satellite and unlicensed wireless. By setting aside

[16] *Id.*

[17] *See supra* Section VII.E.

[18] *See id.*

[19] *See id.*

designated funding for these difficult-to-serve areas, we can ensure that those who live and work in remote locations also have access to affordable broadband service.[20]

22. In the Order, we also take steps to comprehensively reform the intercarrier compensation system to bring substantial benefits to consumers, including reduced rates for all wireless and long distance customers, more innovative communications offerings, and improved quality of service for wireless consumers and consumers of long distance services. The existing intercarrier compensation system—built on geographic and per-minute charges and implicit subsidies—is fundamentally in tension with and a deterrent to deployment of all-IP networks. And the system is eroding rapidly as demand for traditional telephone service falls, with consumers increasingly opting for wireless, VoIP, texting, email, and other phone alternatives. To address these issues, we take immediate action to combat two of the most prevalent arbitrage activities today, phantom traffic and access stimulation. We also launch long-term intercarrier compensation reform by adopting bill-and-keep as the ultimate uniform, national methodology for all telecommunications traffic exchanged with a local exchange carrier (LEC). We begin the transition to bill-and-keep with terminating switched access rates, which are the main source of arbitrage today. We also begin the process of reforming originating access and other rate elements by capping all interstate rates and most intrastate rates. We provide for a measured, gradual transition to bill-and-keep for these rates, and adopt a recovery mechanism that provides carriers with certain and predictable revenue streams. We make clear the prospective payment obligations for VoIP traffic and adopt a transitional intercarrier compensation framework for VoIP. And finally, we clarify certain aspects of CMRS-LEC compensation to reduce disputes and eliminate ambiguities in our rules.

23. We first adopt revisions to our interstate switched access charge rules to address access stimulation.[21] Access stimulation occurs when a LEC with high switched access rates enters into an arrangement with a provider of high call volume operations such as chat lines, adult entertainment calls, and "free" conference calls. Consistent with the approach proposed in the *USF/ICC Transformation NPRM*, we adopt a definition of access stimulation which has two conditions: (1) a revenue sharing condition, revised slightly from the proposal in the *USF/ICC Transformation NPRM*; and (2) an additional traffic volume condition, which is met where the LEC either: (a) has a three-to-one interstate terminating-to-originating traffic ratio in a calendar month; or (b) has had more than a 100 percent growth in interstate originating and/or terminating switched access minutes of use in a month compared to the same month in the preceding year. If both conditions are satisfied, the LEC generally must file revised tariffs to account for its increased traffic and will be required to reduce its interstate switched access tariffed rates to the rates of the price cap LEC in the state with the lowest rates, which are presumptively consistent with the Act. The new access stimulation rules will facilitate enforcement when a LEC does not refile as required.

24. Next, we amend the Commission's rules to address "phantom traffic" by ensuring that terminating service providers receive sufficient information to bill for telecommunications traffic sent to their networks, including interconnected VoIP traffic.[22] "Phantom traffic" refers to traffic that terminating networks receive that lacks certain identifying information. Collectively, problems involving unidentifiable or misidentified traffic appear to be widespread and this sort of gamesmanship distorts the intercarrier compensation system. To address the problem, we adopt the core of the proposal contained in the *USF/ICC Transformation NPRM* – we modify our call signaling rules to require originating service providers to provide signaling information that includes calling party number ("CPN") for all voice traffic, regardless of jurisdiction, and to prohibit interconnecting carriers from stripping or altering that

[20] *See supra* Section VII.F.

[21] *See supra* Section XI.A.

[22] *See supra* Section XI.B.

call signaling information. Service providers that originate interstate or intrastate traffic on the PSTN, or that originate inter- or intrastate interconnected VoIP traffic destined for the PSTN, will now be required to transmit the telephone number associated with the calling party to the next provider in the call path. Intermediate providers must pass calling party number or charge number signaling information they receive from other providers unaltered, to subsequent providers in the call path.

25. We adopt bill-and-keep as the methodology for all intercarrier compensation traffic, consistent with the National Broadband Plan's recommendation to phase out per-minute intercarrier compensation rates.[23] Under bill-and-keep arrangements, a carrier generally looks to its end-users—who are the entities making the choice to subscribe to the carrier's network—rather than looking to other carriers and their customers to recover its costs. We have legal authority to adopt a bill-and-keep methodology as the end point for reform pursuant to our rulemaking authority to implement sections 251(b)(5) and 252(d)(2), in addition to authority under other provisions of the Act, including sections 201 and 332.[24]

26. We conclude that a uniform, national framework for the transition of intercarrier compensation to bill-and-keep, with an accompanying federal recovery mechanism, best advances our policy goals of accelerating the migration to all IP networks, facilitating IP-to-IP interconnection, and promoting deployment of new broadband networks by providing certainty and predictability to carriers and investors.[25] We adopt a gradual transition for terminating access, providing price cap carriers six years and rate-of-return carriers nine years to reach the end state.[26] We believe that initially focusing the bill-and-keep transition on terminating access rates will allow a more manageable process and will focus reform where some of the most pressing problems, such as access charge arbitrage, currently arise. The transition we adopt sets a default framework, leaving carriers free to enter into negotiated agreements that allow for different terms.

27. We conclude it is appropriate to clarify certain aspects of the obligations the Commission adopted in the 2005 *T-Mobile Order*, especially as parties have asked the Commission to make clear when they have the ability to require other carriers to negotiate to reach an interconnection agreement.[27] We reaffirm the findings in the *T-Mobile Order* that incumbent LECs can compel CMRS providers to negotiate in good faith to reach an interconnection agreement, and make clear we have authority to do so pursuant to Sections 332, 201, 251 as well as our ancillary authority under 4(i). We also clarify that this requirement does not impose any section 251(c) obligations on CMRS providers, nor does it extend section 252 of the Act to CMRS providers. We decline, at this time, to extend the obligation to negotiate in good faith and the ability to compel arbitration to other contexts.

28. As part of our comprehensive reforms, we adopt a recovery mechanism to facilitate incumbent LECs' gradual transition away from existing intercarrier revenues.[28] This mechanism allows the LECs to recover ICC revenues reduced due to our reforms, up to a defined baseline, from alternate revenue sources: reasonable, incremental increases in end user rates and, where appropriate, through ICC CAF support. The recovery mechanism is limited in time and carefully balances the benefits of certainty and a gradual transition with the need to contain the size of the federal universal service fund and

[23] *See supra* Section XII.A.

[24] *See supra* Section XII.A.2.

[25] *See supra* Sections XII-XIII.

[26] *See supra* Section XII.C.

[27] *See supra* Section XII.C.

[28] *See supra* Section XIII.

minimize the overall burden on end users. The recovery mechanism is not 100 percent revenue neutral relative to today's revenues, but it eliminates much of the uncertainty carriers face under the existing ICC system, allowing them to make investment decisions based on a full understanding of their revenues from ICC for the next several years.

29. In setting the framework for recovery, we believe that carriers should first look to reasonable but limited recovery from their own end users, consistent with the principle of bill-and-keep and the model in the wireless industry, but take measures to ensure that rates remain affordable and reasonably comparable.[29] Our recovery mechanism has two basic components.[30] First, we define the revenue incumbent LECs are eligible to recover, which we refer to as "Eligible Recovery." Second, we specify how incumbent LECs may recover Eligible Recovery through end-user charges and CAF support. Although we limit a specific recovery mechanism to incumbent LECs, competitive LECs are free to recover their reduced revenues through end user charges.

30. Consistent with past ICC reforms, we permit carriers to recover a reasonable, limited portion of their Eligible Recovery from their end users through a monthly fixed charge called an Access Recovery Charge (ARC).[31] We take measures to help ensure that any ARC increase on consumers does not impact affordability of rates and the annual increase is limited to $0.50 per month. To protect consumers, and to recognize states that have already rebalanced rates in prior state intercarrier compensation reforms, we adopt a $30 Residential Rate Ceiling to ensure that consumers paying $30 or more do not see any increases through ARCs as a result of our current reform. We also take measures to ensure that multi-line businesses' total subscriber line charge (SLC) plus ARC line items are just and reasonable, we do not permit LECs to charge a multi-line business ARC where the SLC plus ARC would exceed $12.20 per line. Although we limit a specific recovery mechanism to incumbent LECs, competitive LECs are free to recover their reduced revenues through end user charges.

31. The Commission has recognized that some areas are uneconomic to serve absent implicit or explicit support. As we continue the transition from implicit to explicit support that the Commission began in 1997, recovery from the CAF for incumbent LECs will be available to the extent their Eligible Recovery exceeds their permitted ARCs. For price cap carriers that elect to receive CAF support, such support is transitional and phases out over three years, beginning in 2017. For rate-of-return carriers, ICC-replacement CAF support will phase down with Eligible Recovery over time. All incumbent LECs that elect to receive CAF support as part of this recovery mechanism will have broadband obligations and be held to the same accountability and oversight requirements adopted in section VI. Competitive LECs, which have greater freedom in setting rates and picking which customers to serve, will not be eligible for CAF support to replace reductions in ICC revenues.

32. We establish a rebuttable presumption that the reforms adopted in this Order, including the recovery of Eligible Recovery from the ARC and CAF, allow incumbent LECs to earn a reasonable return on their investment.[32] We establish a "Total Cost and Earnings Review," through which a carrier may petition the Commission to rebut this presumption and request additional support. We identify certain factors in addition to switched access costs and revenues that *may* affect our analysis of requests for additional support, including: (1) other revenues derived from regulated services provided over the

[29] *See supra* Section XIII.

[30] *See supra* Section XIII.

[31] *See supra* Section XIII.

[32] *See supra* Section XIII.

local network, such as special access; (2) productivity gains; (3) incumbent LEC ICC expense reductions and other cost savings, and (4) other services provided over the local network.

33. Under the new intercarrier compensation regime, all traffic—including VoIP traffic—ultimately will be subject to a bill-and-keep framework.[33] As part of our transition to that end point, we adopt a prospective intercarrier compensation framework for VoIP traffic. In particular, we address the prospective treatment of VoIP-PSTN traffic by adopting a transitional compensation framework for such traffic proposed by commenters in the record. Under this transitional framework: we bring all VoIP-PSTN traffic within the section 251(b)(5) framework; default intercarrier compensation rates for toll VoIP-PSTN traffic are equal to interstate access rates; default intercarrier compensation rates for other VoIP-PSTN traffic are the otherwise-applicable reciprocal compensation rates; and carriers may tariff these default charges for toll VoIP-PSTN traffic in the absence of an agreement for different intercarrier compensation.[34] We also make clear providers' ability to use existing section 251(c)(2) interconnection arrangements to exchange VoIP-PSTN traffic pursuant to compensation addressed in the providers' interconnection agreement, and address the application of Commission policies regarding call blocking in this context.[35]

34. To adopt this prospective regime we rely on our general authority to specify a transition to bill-and-keep for section 251(b)(5) traffic.[36] As a result, tariffing of charges for toll VoIP-PSTN traffic can occur through both federal and state tariffs. We do recognize concerns regarding providers' ability to distinguish VoIP-PSTN traffic from other traffic, and, consistent with the recommendations of a number of commenters, we permit LECs to address this issue through their tariffs, much as they do with jurisdictional issues today.

35. As part of our comprehensive ICC reform, we also believe it is also appropriate for the Commission to clarify the system of intercarrier compensation applicable to non-access traffic exchanged between LECs and CMRS providers. Accordingly, we clarify that the compensation obligations under section 20.11 are coextensive with the reciprocal compensation requirements under section 251(b)(5).[37] Although we have adopted a glide path to a bill-and-keep methodology for access charges generally and for reciprocal compensation between two wireline carriers, we find that a different approach is warranted for non-access traffic between LECs and CMRS providers for several reasons. We find a greater need for immediate application of a bill-and-keep methodology in this context to address traffic stimulation. In addition, consistent with our overall reform approach, we adopt bill-and-keep as the default compensation for non-access traffic exchanged between LECs and CMRS providers. We adopt an additional measure to further ease the move to bill-and-keep LEC-CMRS traffic for rate-of-return carriers. Specifically, we limit rate-of-return carriers' responsibility for the costs of transport involving non-access traffic exchanged between CMRS providers and rural, rate-of-return regulated LECs. We find that these steps are consistent with our overall reform and will support our goal of modernizing and unifying the intercarrier compensation system.

36. We address certain pending issues and disputes regarding what is now commonly known as the intraMTA rule, which provides that traffic exchanged between a LEC and a CMRS provider that originates and terminates within the same Major Trading Area (MTA) is subject to reciprocal

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[33] *See supra* Section XIV.

[34] *See supra* Section XIV.

[35] *See supra* Section XIV.

[36] *See supra* Section XIV.

[37] *See supra* Section XV.

compensation obligations rather than interstate or intrastate access charges.[38] We resolve two issues that have been raised before the Commission regarding the correct application of this rule to specific traffic patterns. First, we clarify that a call is considered to be originated by a CMRS provider for purposes of the intraMTA rule only if the calling party initiating the call has done so through a CMRS provider. Second, we affirm that all traffic routed to or from a CMRS provider that, at the beginning of a call, originates and terminates within the same MTA, is subject to reciprocal compensation, without exception. In addition to these clarifications, we also deny requests that the intraMTA rule be modified to encompass a geographic license area known as the regional economic area grouping (REAG).

37. Finally, recognizing that IP interconnection between providers is critical, we agree with the record that, as the industry transitions to all IP networks, carriers should begin planning for the transition to all-IP networks, and that such a transition will likely be appropriate before the completion of the intercarrier compensation phase down. Even while our FNPRM is pending, we expect all carriers to negotiate in good faith in response to requests for IP-to-IP interconnection for the exchange of voice traffic. The duty to negotiate in good faith has been a longstanding element of interconnection requirements under the Communications Act and does not depend upon the network technology underlying the interconnection, whether TDM, IP, or otherwise.[39]

B. Summary of Significant Issues Raised by Public Comments in Response to the IRFA

38. No comments were filed in response to the *Mobility Fund NPRM* IRFA. In response to the *USF/ICC Transformation NPRM* IRFA, four parties filed comments that specifically address the IRFA with respect to proposed universal service reform. Valley Telephone Cooperative, Cascade Utilities, Molalla Communications and Pine Telephone System filed identical but separate comments contending that, since the Commission's universal service proposals will cause significant financial difficulties for many small companies operating in rural America, the Commission's IRFA contained in the *Notice* is inadequate.[40] These commenters state that the Commission needs to do a full analysis of the effect that the proposals will have on small companies serving rural areas.[41] In making the determinations reflected in the Order, we have considered the impact of our actions on small entities.

39. In comments filed in response to the IRFA, concerns were also raised regarding the adequacy of the IRFA with respect to proposed intercarrier compensation reforms. Bluegrass Telephone Company stated that the IRFA was insufficiently specific regarding the proposed access stimulation rules, and that the Commission should decline to act on the proposed access stimulation rules until the Commission releases a more detailed analysis of the rules.[42] Likewise, Furchtgott-Roth Economic Enterprises also states that the IRFA was insufficiently specific regarding the proposed rule for revenue sharing and access charges.[43] We disagree: we believe that the IRFA was adequate and that the

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[38] *See supra* Section XV.

[39] *See supra* Section XVI.

[40] *See* Letter from Brenda Crosby, President, Cascade Utilities, Inc., to Marlene H. Dortch, Secretary, FCC, WC Docket Nos. 10-90, et al., at 3 (filed April 6, 2011); Comments of Molalla Telephone Company at 3 (filed April 18, 2011); Letter from John Hemphill, Vice President, Pine Telephone System, Inc., to Marlene H. Dortch, Secretary, FCC, WC Docket Nos. 10-90, et al., at 3 (filed March 30, 2011); Letter from Dave Osborn, Valley Telephone Cooperative, Inc. to Marlene H. Dortch, Secretary, FCC, WC Docket Nos. 10-90, et al., at 3 (filed August 29, 2011).

[41] *Id.*

[42] Bluegrass Telephone Company *USF/ICC Transformation NPRM* Comments at 35-36.

[43] Furchtgott-Roth Economic Enterprises *USF/ICC Transformation NPRM* Comments at 14.

opportunity for parties, including small business enterprises to comment in a publicly accessible docket on the proposed rule revisions and other proposals contained in the *USF/ICC Transformation NPRM* was sufficient. The IRFA described that the *USF/ICC Transformation NPRM* sought comment on amendments to the Commission's rules to address access stimulation as well as a range of outcomes for access charge reform.[44] The IRFA further identified carriers, including small entities as possibly being subject to these reforms,[45] including projected reporting or other compliance-related requirements.[46]

C. Description and Estimate of the Number of Small Entities to which the Proposed Rules Will Apply

40. The RFA directs agencies to provide a description of, and where feasible, an estimate of the number of small entities that may be affected by the proposed rules, if adopted.[47] The RFA generally defines the term "small entity" as having the same meaning as the terms "small business," "small organization," and "small governmental jurisdiction."[48] In addition, the term "small business" has the same meaning as the term "small-business concern" under the Small Business Act.[49] A small-business concern" is one which: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the SBA.[50]

41. **Small Businesses.** Nationwide, there are a total of approximately 27.5 million small businesses, according to the SBA.[51]

42. **Wired Telecommunications Carriers.** The SBA has developed a small business size standard for Wired Telecommunications Carriers, which consists of all such companies having 1,500 or fewer employees.[52] According to Census Bureau data for 2007, there were 3,188 firms in this category, total, that operated for the entire year.[53] Of this total, 3144 firms had employment of 999 or fewer employees, and 44 firms had employment of 1000 employees or more.[54] Thus, under this size standard, the majority of firms can be considered small.

43. **Local Exchange Carriers (LECs).** Neither the Commission nor the SBA has developed a size standard for small businesses specifically applicable to local exchange services. The closest

[44] *USF/ICC Transformation NPRM*, 26 FCC Rcd at 4803.

[45] *See id.* at 4803-4825.

[46] *See id.* at

[47] *See* 5 U.S.C. § 603(b)(3).

[48] *See* 5 U.S.C. § 601(6).

[49] *See* 5 U.S.C. § 601(3) (incorporating by reference the definition of "small-business concern" in the Small Business Act, 15 U.S.C. § 632). Pursuant to 5 U.S.C. § 601(3), the statutory definition of a small business applies "unless an agency, after consultation with the Office of Advocacy of the Small Business Administration and after opportunity for public comment, establishes one or more definitions of such term which are appropriate to the activities of the agency and publishes such definition(s) in the Federal Register."

[50] *See* 15 U.S.C. § 632.

[51] *See* SBA, Office of Advocacy, "Frequently Asked Questions," http://www.sba.gov/advo/stats/sbfaq.pdf (accessed Dec. 2010).

[52] 13 C.F.R. § 121.201, NAICS code 517110.

[53] U.S. Census Bureau, 2007 Economic Census, Subject Series: Information, Table 5, "Establishment and Firm Size: Employment Size of Firms for the United States: 2007 NAICS Code 517110" (issued Nov. 2010).

[54] *See id.*

applicable size standard under SBA rules is for Wired Telecommunications Carriers. Under that size standard, such a business is small if it has 1,500 or fewer employees.[55] According to Commission data, 1,307 carriers reported that they were incumbent local exchange service providers.[56] Of these 1,307 carriers, an estimated 1,006 have 1,500 or fewer employees and 301 have more than 1,500 employees.[57] Consequently, the Commission estimates that most providers of local exchange service are small entities that may be affected by the rules and policies proposed in the Order.

44. **Incumbent Local Exchange Carriers (incumbent LECs).** Neither the Commission nor the SBA has developed a size standard for small businesses specifically applicable to incumbent local exchange services. The closest applicable size standard under SBA rules is for Wired Telecommunications Carriers. Under that size standard, such a business is small if it has 1,500 or fewer employees.[58] According to Commission data, 1,307 carriers reported that they were incumbent local exchange service providers.[59] Of these 1,307 carriers, an estimated 1,006 have 1,500 or fewer employees and 301 have more than 1,500 employees.[60] Consequently, the Commission estimates that most providers of incumbent local exchange service are small businesses that may be affected by rules adopted pursuant to the Order

45. We have included small incumbent LECs in this present RFA analysis. As noted above, a "small business" under the RFA is one that, *inter alia*, meets the pertinent small business size standard (e.g., a telephone communications business having 1,500 or fewer employees), and "is not dominant in its field of operation."[61] The SBA's Office of Advocacy contends that, for RFA purposes, small incumbent LECs are not dominant in their field of operation because any such dominance is not "national" in scope.[62] We have therefore included small incumbent LECs in this RFA analysis, although we emphasize that this RFA action has no effect on Commission analyses and determinations in other, non-RFA contexts.

46. **Competitive Local Exchange Carriers (competitive LECs), Competitive Access Providers (CAPs), Shared-Tenant Service Providers, and Other Local Service Providers.** Neither the Commission nor the SBA has developed a small business size standard specifically for these service providers. The appropriate size standard under SBA rules is for the category Wired Telecommunications Carriers. Under that size standard, such a business is small if it has 1,500 or fewer employees.[63] According to Commission data, 1,442 carriers reported that they were engaged in the provision of either

[55] 13 C.F.R. § 121.201, NAICS code 517110.

[56] *See Trends in Telephone Service*, Federal Communications Commission, Wireline Competition Bureau, Industry Analysis and Technology Division at Table 5.3 (Sept. 2010) (*Trends in Telephone Service*).

[57] *See id.*

[58] *See* 13 C.F.R. § 121.201, NAICS code 517110.

[59] *See Trends in Telephone Service* at Table 5.3.

[60] *See id.*

[61] 5 U.S.C. § 601(3).

[62] *See* Letter from Jere W. Glover, Chief Counsel for Advocacy, SBA, to William E. Kennard, Chairman, FCC (May 27, 1999). The Small Business Act contains a definition of "small business concern," which the RFA incorporates into its own definition of "small business." *See* 15 U.S.C. § 632(a); *see also* 5 U.S.C. § 601(3). SBA regulations interpret "small business concern" to include the concept of dominance on a national basis. *See* 13 C.F.R. § 121.102(b).

[63] *See* 13 C.F.R. § 121.201, NAICS code 517110.

competitive local exchange services or competitive access provider services.[64] Of these 1,442 carriers, an estimated 1,256 have 1,500 or fewer employees and 186 have more than 1,500 employees.[65] In addition, 17 carriers have reported that they are Shared-Tenant Service Providers, and all 17 are estimated to have 1,500 or fewer employees.[66] In addition, 72 carriers have reported that they are Other Local Service Providers.[67] Of the 72, seventy have 1,500 or fewer employees and two have more than 1,500 employees.[68] Consequently, the Commission estimates that most providers of competitive local exchange service, competitive access providers, Shared-Tenant Service Providers, and Other Local Service Providers are small entities that may be affected by rules adopted pursuant to the Order.

47. **Interexchange Carriers (IXCs).** Neither the Commission nor the SBA has developed a size standard for small businesses specifically applicable to interexchange services. The closest applicable size standard under SBA rules is for Wired Telecommunications Carriers. Under that size standard, such a business is small if it has 1,500 or fewer employees.[69] According to Commission data, 359 companies reported that their primary telecommunications service activity was the provision of interexchange services.[70] Of these 359 companies, an estimated 317 have 1,500 or fewer employees and 42 have more than 1,500 employees.[71] Consequently, the Commission estimates that the majority of interexchange service providers are small entities that may be affected by rules adopted pursuant to the Order.

48. **Prepaid Calling Card Providers.** Neither the Commission nor the SBA has developed a small business size standard specifically for prepaid calling card providers. The appropriate size standard under SBA rules is for the category Telecommunications Resellers. Under that size standard, such a business is small if it has 1,500 or fewer employees.[72] According to Commission data, 193 carriers have reported that they are engaged in the provision of prepaid calling cards.[73] Of these, an estimated all 193 have 1,500 or fewer employees and none have more than 1,500 employees.[74] Consequently, the Commission estimates that the majority of prepaid calling card providers are small entities that may be affected by rules adopted pursuant to the Order.

49. **Local Resellers.** The SBA has developed a small business size standard for the category of Telecommunications Resellers. Under that size standard, such a business is small if it has 1,500 or fewer employees.[75] According to Commission data, 213 carriers have reported that they are engaged in the provision of local resale services.[76] Of these, an estimated 211 have 1,500 or fewer employees and

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[64] *See Trends in Telephone Service* at Table 5.3.

[65] *See id.*

[66] *See id.*

[67] *See id.*

[68] *See id.*

[69] *See* 13 C.F.R. § 121.201, NAICS code 517110.

[70] *See Trends in Telephone Service* at Table 5.3.

[71] *See id.*

[72] *See* 13 C.F.R. § 121.201, NAICS code 517911.

[73] *See Trends in Telephone Service* at Table 5.3.

[74] *See id.*

[75] *See* 13 C.F.R. § 121.201, NAICS code 517911.

[76] *See Trends in Telephone Service* at Table 5.3.

two have more than 1,500 employees.[77] Consequently, the Commission estimates that the majority of local resellers are small entities that may be affected by rules adopted pursuant to the Order.

50. **Toll Resellers**. The SBA has developed a small business size standard for the category of Telecommunications Resellers. Under that size standard, such a business is small if it has 1,500 or fewer employees.[78] According to Commission data, 881 carriers have reported that they are engaged in the provision of toll resale services.[79] Of these, an estimated 857 have 1,500 or fewer employees and 24 have more than 1,500 employees.[80] Consequently, the Commission estimates that the majority of toll resellers are small entities that may be affected by rules adopted pursuant to the Order.

51. **Other Toll Carriers**. Neither the Commission nor the SBA has developed a size standard for small businesses specifically applicable to Other Toll Carriers. This category includes toll carriers that do not fall within the categories of interexchange carriers, operator service providers, prepaid calling card providers, satellite service carriers, or toll resellers. The closest applicable size standard under SBA rules is for Wired Telecommunications Carriers. Under that size standard, such a business is small if it has 1,500 or fewer employees.[81] According to Commission data, 284 companies reported that their primary telecommunications service activity was the provision of other toll carriage.[82] Of these, an estimated 279 have 1,500 or fewer employees and five have more than 1,500 employees.[83] Consequently, the Commission estimates that most Other Toll Carriers are small entities that may be affected by the rules and policies adopted pursuant to the Order.

52. **800 and 800-Like Service Subscribers.**[84] Neither the Commission nor the SBA has developed a small business size standard specifically for 800 and 800-like service (toll free) subscribers. The appropriate size standard under SBA rules is for the category Telecommunications Resellers. Under that size standard, such a business is small if it has 1,500 or fewer employees.[85] The most reliable source of information regarding the number of these service subscribers appears to be data the Commission collects on the 800, 888, 877, and 866 numbers in use.[86] According to our data, as of September 2009, the number of 800 numbers assigned was 7,860,000; the number of 888 numbers assigned was 5,588,687; the number of 877 numbers assigned was 4,721,866; and the number of 866 numbers assigned was 7,867,736.[87] We do not have data specifying the number of these subscribers that are not independently owned and operated or have more than 1,500 employees, and thus are unable at this time to estimate with greater precision the number of toll free subscribers that would qualify as small businesses under the SBA size standard. Consequently, we estimate that there are 7,860,000 or fewer small entity 800 subscribers;

[77] *See id.*

[78] *See* 13 C.F.R. § 121.201, NAICS code 517911.

[79] *See Trends in Telephone Service* at Table 5.3.

[80] *See id.*

[81] *See* 13 C.F.R. § 121.201, NAICS code 517110.

[82] *See Trends in Telephone Service* at Table 5.3.

[83] *See id.*

[84] We include all toll-free number subscribers in this category, including those for 888 numbers.

[85] *See* 13 C.F.R. § 121.201, NAICS code 517911.

[86] *See Trends in Telephone Service* at Tables 18.7-18.10.

[87] *See id.*

5,588,687 or fewer small entity 888 subscribers; 4,721,866 or fewer small entity 877 subscribers; and 7,867,736 or fewer small entity 866 subscribers.

53. **Wireless Telecommunications Carriers (except Satellite).** Since 2007, the SBA has recognized wireless firms within this new, broad, economic census category.[88] Prior to that time, such firms were within the now-superseded categories of Paging and Cellular and Other Wireless Telecommunications.[89] Under the present and prior categories, the SBA has deemed a wireless business to be small if it has 1,500 or fewer employees.[90] For this category, census data for 2007 show that there were 1,383 firms that operated for the entire year.[91] Of this total, 1,368 firms had employment of 999 or fewer employees and 15 had employment of 1000 employees or more.[92] Similarly, according to Commission data, 413 carriers reported that they were engaged in the provision of wireless telephony, including cellular service, Personal Communications Service (PCS), and Specialized Mobile Radio (SMR) Telephony services.[93] Of these, an estimated 261 have 1,500 or fewer employees and 152 have more than 1,500 employees.[94] Consequently, the Commission estimates that approximately half or more of these firms can be considered small. Thus, using available data, we estimate that the majority of wireless firms can be considered small.

54. **Broadband Personal Communications Service.** The broadband personal communications service (PCS) spectrum is divided into six frequency blocks designated A through F, and the Commission has held auctions for each block. The Commission defined "small entity" for Blocks C and F as an entity that has average gross revenues of $40 million or less in the three previous calendar years.[95] For Block F, an additional classification for "very small business" was added and is defined as an entity that, together with its affiliates, has average gross revenues of not more than $15 million for the preceding three calendar years.[96] These standards defining "small entity" in the context of broadband PCS auctions have been approved by the SBA.[97] No small businesses, within the SBA-approved small business size standards bid successfully for licenses in Blocks A and B. There were 90

[88] *See* 13 C.F.R. § 121.201, NAICS code 517210.

[89] U.S. Census Bureau, 2002 NAICS Definitions, "517211 Paging"; http://www.census.gov/epcd/naics02/def/NDEF517.HTM; U.S. Census Bureau, 2002 NAICS Definitions, "517212 Cellular and Other Wireless Telecommunications"; http://www.census.gov/epcd/naics02/def/NDEF517.HTM.

[90] 13 C.F.R. § 121.201, NAICS code 517210. The now-superseded, pre-2007 C.F.R. citations were 13 C.F.R. § 121.201, NAICS codes 517211 and 517212 (referring to the 2002 NAICS).

[91] U.S. Census Bureau, Subject Series: Information, Table 5, "Establishment and Firm Size: Employment Size of Firms for the United States: 2007 NAICS Code 517210" (issued Nov. 2010).

[92] *Id.* Available census data do not provide a more precise estimate of the number of firms that have employment of 1,500 or fewer employees; the largest category provided is for firms with "100 employees or more."

[93] *See Trends in Telephone Service* at Table 5.3.

[94] *See id.*

[95] *See generally Amendment of Parts 20 and 24 of the Commission's Rules – Broadband PCS Competitive Bidding and the Commercial Mobile Radio Service Spectrum Cap*, WT Docket No. 96-59, GN Docket No. 90-314, Report and Order, 11 FCC Rcd 7824 (1996); *see also* 47 C.F.R. § 24.720(b)(1).

[96] *See generally Amendment of Parts 20 and 24 of the Commission's Rules – Broadband PCS Competitive Bidding and the Commercial Mobile Radio Service Spectrum Cap*, WT Docket No. 96-59, GN Docket No. 90-314, Report and Order, 11 FCC Rcd 7824 (1996); *see also* 47 C.F.R. § 24.720(b)(2).

[97] *See, e.g., Implementation of Section 309(j) of the Communications Act – Competitive Bidding*, PP Docket No. 93-253, Fifth Report and Order, 9 FCC Rcd 5532 (1994).

winning bidders that qualified as small entities in the Block C auctions. A total of 93 small and very small business bidders won approximately 40 percent of the 1,479 licenses for Blocks D, E, and F.[98] In 1999, the Commission re-auctioned 347 C, E, and F Block licenses.[99] There were 48 small business winning bidders. In 2001, the Commission completed the auction of 422 C and F Broadband PCS licenses in Auction 35.[100] Of the 35 winning bidders in this auction, 29 qualified as "small" or "very small" businesses. Subsequent events, concerning Auction 35, including judicial and agency determinations, resulted in a total of 163 C and F Block licenses being available for grant. In 2005, the Commission completed an auction of 188 C block licenses and 21 F block licenses in Auction 58. There were 24 winning bidders for 217 licenses.[101] Of the 24 winning bidders, 16 claimed small business status and won 156 licenses. In 2007, the Commission completed an auction of 33 licenses in the A, C, and F Blocks in Auction 71.[102] Of the 14 winning bidders, six were designated entities.[103] In 2008, the Commission completed an auction of 20 Broadband PCS licenses in the C, D, E and F block licenses in Auction 78.[104]

55. **Advanced Wireless Services.** In 2008, the Commission conducted the auction of Advanced Wireless Services ("AWS") licenses.[105] This auction, which as designated as Auction 78, offered 35 licenses in the AWS 1710-1755 MHz and 2110-2155 MHz bands ("AWS-1"). The AWS-1 licenses were licenses for which there were no winning bids in Auction 66. That same year, the Commission completed Auction 78. A bidder with attributed average annual gross revenues that exceeded $15 million and did not exceed $40 million for the preceding three years ("small business") received a 15 percent discount on its winning bid. A bidder with attributed average annual gross revenues that did not exceed $15 million for the preceding three years ("very small business") received a 25 percent discount on its winning bid. A bidder that had combined total assets of less than $500 million and combined gross revenues of less than $125 million in each of the last two years qualified for entrepreneur status.[106] Four winning bidders that identified themselves as very small businesses won 17

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[98] *See* FCC News, Broadband PCS, D, E and F Block Auction Closes, No. 71744 (rel. Jan. 14, 1997). *See also Amendment of the Commission's Rules Regarding Installment Payment Financing for Personal Communications Services (PCS) Licensees*, WT Docket No. 97-82, Second Report and Order and Further Notice of Proposed Rulemaking, 12 FCC Rcd 16436 (1997).

[99] *See* "C, D, E, and F Block Broadband PCS Auction Closes" *Public Notice*, 14 FCC Rcd 6688 (WTB 1999).

[100] *See* "C and F Block Broadband PCS Auction Closes; Winning Bidders Announced," *Public Notice*, 16 FCC Rcd 2339 (2001).

[101] *See* "Broadband PCS Spectrum Auction Closes; Winning Bidders Announced for Auction No. 58," *Public Notice*, 20 FCC Rcd 3703 (2005).

[102] *See* "Auction of Broadband PCS Spectrum Licenses Closes; Winning Bidders Announced for Auction No. 71," *Public Notice*, 22 FCC Rcd 9247 (2007).

[103] *Id.*

[104] *See* "Auction of AWS-1 and Broadband PCS Licenses Rescheduled For August 13, 3008, Notice of Filing Requirements, Minimum Opening Bids, Upfront Payments and Other Procedures For Auction 78," *Public Notice*, 23 FCC Rcd 7496 (2008) (*AWS-1 and Broadband PCS Procedures Public Notice*).

[105] *See AWS-1 and Broadband PCS Procedures Public Notice*, 23 FCC Rcd 7496. Auction 78 also included an auction of Broadband PCS licenses.

[106] *Id.* at 7521-22.

licenses.[107] Three of the winning bidders that identified themselves as a small business won five licenses. Additionally, one other winning bidder that qualified for entrepreneur status won 2 licenses.

56. **Narrowband Personal Communications Services**. In 1994, the Commission conducted an auction for Narrowband PCS licenses. A second auction was also conducted later in 1994. For purposes of the first two Narrowband PCS auctions, "small businesses" were entities with average gross revenues for the prior three calendar years of $40 million or less.[108] Through these auctions, the Commission awarded a total of 41 licenses, 11 of which were obtained by four small businesses.[109] To ensure meaningful participation by small business entities in future auctions, the Commission adopted a two-tiered small business size standard in the Narrowband PCS Second Report and Order.[110] A "small business" is an entity that, together with affiliates and controlling interests, has average gross revenues for the three preceding years of not more than $40 million.[111] A "very small business" is an entity that, together with affiliates and controlling interests, has average gross revenues for the three preceding years of not more than $15 million.[112] The SBA has approved these small business size standards.[113] A third auction was conducted in 2001. Here, five bidders won 317 (Metropolitan Trading Areas and nationwide) licenses.[114] Three of these claimed status as a small or very small entity and won 311 licenses.

57. **Paging (Private and Common Carrier)**. In the *Paging Third Report and Order*, we developed a small business size standard for "small businesses" and "very small businesses" for purposes of determining their eligibility for special provisions such as bidding credits and installment payments.[115] A "small business" is an entity that, together with its affiliates and controlling principals, has average gross revenues not exceeding $15 million for the preceding three years. Additionally, a "very small business" is an entity that, together with its affiliates and controlling principals, has average gross revenues that are not more than $3 million for the preceding three years. The SBA has approved these

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[107] *See* "Auction of AWS-1 and Broadband PCS Licenses Closes, Winning Bidders Announced for Auction 78, Down Payments Due September 9, 2008, FCC Forms 601 and 602 Due September 9, 2008, Final Payments Due September 23, 2008, Ten-Day Petition to Deny Period," *Public Notice*, 23 FCC Rcd 12749 (2008).

[108] *Implementation of Section 309(j) of the Communications Act – Competitive Bidding Narrowband PCS*, PP Docket No. 93-253, GEN Docket No. 90-314, ET Docket No. 92-100, Third Memorandum Opinion and Order and Further Notice of Proposed Rulemaking, 10 FCC Rcd 175, 196, para. 46 (1994).

[109] *See Announcing the High Bidders in the Auction of Ten Nationwide Narrowband PCS Licenses, Winning Bids Total $617,006,674*, Public Notice, PNWL 94-004 (rel. Aug. 2, 1994); *Announcing the High Bidders in the Auction of 30 Regional Narrowband PCS Licenses; Winning Bids Total $490,901,787*, Public Notice, PNWL 94-27 (rel. Nov. 9, 1994).

[110] *Amendment of the Commission's Rules to Establish New Personal Communications Services*, GEN Docket No. 90-314, ET Docket No. 92-100, PP Docket No. 93-253, Narrowband PCS, Second Report and Order and Second Further Notice of Proposed Rule Making, 15 FCC Rcd 10456, 10476, para. 40 (2000) (*Narrowband PCS Second Report and Order*).

[111] *Narrowband PCS Second Report and Order*, 15 FCC Rcd at 10476, para. 40.

[112] *Id.*

[113] *See* Letter to Amy Zoslov, Chief, Auctions and Industry Analysis Division, Wireless Telecommunications Bureau, FCC, from A. Alvarez, Administrator, SBA (Dec. 2, 1998) (*Alvarez Letter 1998*).

[114] *See* "Narrowband PCS Auction Closes," *Public Notice*, 16 FCC Rcd 18663 (WTB 2001).

[115] *See Revision of Part 22 and Part 90 of the Commission's Rules to Facilitate Future Development of Paging Systems*, WT Docket No. 96-18, PR Docket No. 93-253, Memorandum Opinion and Order on Reconsideration and Third Report and Order, 14 FCC Rcd 10030, 10085–88, paras. 98–107 (1999) (*Paging Third Report and Order*)

small business size standards.[116] According to Commission data, 291 carriers have reported that they are engaged in Paging or Messaging Service.[117] Of these, an estimated 289 have 1,500 or fewer employees, and two have more than 1,500 employees.[118] Consequently, the Commission estimates that the majority of paging providers are small entities that may be affected by our action. An auction of Metropolitan Economic Area licenses commenced on February 24, 2000, and closed on March 2, 2000. Of the 2,499 licenses auctioned, 985 were sold. Fifty-seven companies claiming small business status won 440 licenses.[119] A subsequent auction of MEA and Economic Area ("EA") licenses was held in the year 2001. Of the 15,514 licenses auctioned, 5,323 were sold.[120] One hundred thirty-two companies claiming small business status purchased 3,724 licenses. A third auction, consisting of 8,874 licenses in each of 175 EAs and 1,328 licenses in all but three of the 51 MEAs, was held in 2003. Seventy-seven bidders claiming small or very small business status won 2,093 licenses.[121] A fourth auction, consisting of 9,603 lower and upper paging band licenses was held in the year 2010. Twenty-nine bidders claiming small or very small business status won 3,016 licenses.[122].

58. **220 MHz Radio Service – Phase I Licensees**. The 220 MHz service has both Phase I and Phase II licenses. Phase I licensing was conducted by lotteries in 1992 and 1993. There are approximately 1,515 such non-nationwide licensees and four nationwide licensees currently authorized to operate in the 220 MHz band. The Commission has not developed a small business size standard for small entities specifically applicable to such incumbent 220 MHz Phase I licensees. To estimate the number of such licensees that are small businesses, we apply the small business size standard under the SBA rules applicable to Wireless Telecommunications Carriers (except Satellite). Under this category, the SBA deems a wireless business to be small if it has 1,500 or fewer employees.[123] The Commission estimates that nearly all such licensees are small businesses under the SBA's small business size standard that may be affected by rules adopted pursuant to the Order.

59. **220 MHz Radio Service – Phase II Licensees**. The 220 MHz service has both Phase I and Phase II licenses. The Phase II 220 MHz service is subject to spectrum auctions. In the *220 MHz Third Report and Order*, we adopted a small business size standard for "small" and "very small" businesses for purposes of determining their eligibility for special provisions such as bidding credits and installment payments.[124] This small business size standard indicates that a "small business" is an entity

[116] *See Alvarez Letter 1998.*

[117] *See Trends in Telephone Service* at Table 5.3.

[118] *See id.*

[119] *See id.*

[120] *See "Lower and Upper Paging Band Auction Closes,"* Public Notice, 16 FCC Rcd 21821 (WTB 2002).

[121] *See "Lower and Upper Paging Bands Auction Closes,"* Public Notice, 18 FCC Rcd 11154 (WTB 2003). The current number of small or very small business entities that hold wireless licenses may differ significantly from the number of such entities that won in spectrum auctions due to assignments and transfers of licenses in the secondary market over time. In addition, some of the same small business entities may have won licenses in more than one auction.

[122] *See "Auction of Lower and Upper Paging Bands Licenses Closes,"* Public Notice, 25 FCC Rcd 18,164 (WTB 2010).

[123] *See* 13 C.F.R. § 121.201, NAICS code 517210.

[124] *See Amendment of Part 90 of the Commission's Rules to Provide for the Use of the 220-222 MHz Band by the Private Land Mobile Radio Service*, PR Docket No. 89-552, GN Docket No. 93-252, PP Docket No. 93-253, Third Report and Order and Fifth Notice of Proposed Rulemaking, 12 FCC Rcd 10943, 11068–70, paras. 291–295 (1997) (*220 MHz Third Report and Order*).

that, together with its affiliates and controlling principals, has average gross revenues not exceeding $15 million for the preceding three years.[125] A "very small business" is an entity that, together with its affiliates and controlling principals, has average gross revenues that do not exceed $3 million for the preceding three years.[126] The SBA has approved these small business size standards.[127] Auctions of Phase II licenses commenced on September 15, 1998, and closed on October 22, 1998.[128] In the first auction, 908 licenses were auctioned in three different-sized geographic areas: three nationwide licenses, 30 Regional Economic Area Group (EAG) Licenses, and 875 Economic Area (EA) Licenses. Of the 908 licenses auctioned, 693 were sold. Thirty-nine small businesses won licenses in the first 220 MHz auction. The second auction included 225 licenses: 216 EA licenses and 9 EAG licenses. Fourteen companies claiming small business status won 158 licenses.[129]

60. **Specialized Mobile Radio**. The Commission awards small business bidding credits in auctions for Specialized Mobile Radio ("SMR") geographic area licenses in the 800 MHz and 900 MHz bands to entities that had revenues of no more than $15 million in each of the three previous calendar years.[130] The Commission awards very small business bidding credits to entities that had revenues of no more than $3 million in each of the three previous calendar years.[131] The SBA has approved these small business size standards for the 800 MHz and 900 MHz SMR Services.[132] The Commission has held auctions for geographic area licenses in the 800 MHz and 900 MHz bands. The 900 MHz SMR auction was completed in 1996.[133] Sixty bidders claiming that they qualified as small businesses under the $15 million size standard won 263 geographic area licenses in the 900 MHz SMR band.[134] The 800 MHz SMR auction for the upper 200 channels was conducted in 1997. Ten bidders claiming that they qualified as small businesses under the $15 million size standard won 38 geographic area licenses for the upper 200 channels in the 800 MHz SMR band.[135] A second auction for the 800 MHz band was conducted in 2002 and included 23 BEA licenses. One bidder claiming small business status won five licenses.[136]

61. The auction of the 1,053 800 MHz SMR geographic area licenses for the General Category channels was conducted in 2000. Eleven bidders won 108 geographic area licenses for the General Category channels in the 800 MHz SMR band qualified as small businesses under the $15

[125] *See id.* at 11068–69, para. 291.

[126] *See id.* at 11068–70, paras. 291–95.

[127] *See* Letter to D. Phythyon, Chief, Wireless Telecommunications Bureau, FCC, from Aida Alvarez, Administrator, SBA (Jan. 6, 1998) (*Alvarez to Phythyon Letter 1998*).

[128] *See* "Phase II 220 MHz Service Auction Closes," *Public Notice*, 14 FCC Rcd 605 (1998).

[129] *See* "Phase II 220 MHz Service Spectrum Auction Closes," *Public Notice*, 14 FCC Rcd 11218 (1999).

[130] 47 C.F.R. §§ 90.810, 90.814(b), 90.912.

[131] 47 C.F.R. §§ 90.810, 90.814(b), 90.912.

[132] *See* Letter from Aida Alvarez, Administrator, SBA, to Thomas Sugrue, Chief, Wireless Telecommunications Bureau, FCC (Aug. 10, 1999) (*Alvarez Letter 1999*).

[133] "FCC Announces Winning Bidders in the Auction of 1,020 Licenses to Provide 900 MHz SMR in Major Trading Areas: Down Payments due April 22, 1996, FCC Form 600s due April 29, 1996," *Public Notice*, 11 FCC Rcd 18599 (WTB 1996).

[134] *Id.*

[135] *See* "Correction to Public Notice DA 96-586 'FCC Announces Winning Bidders in the Auction of 1020 Licenses to Provide 900 MHz SMR in Major Trading Areas,'" *Public Notice*, 11 FCC Rcd 18,637 (WTB 1996).

[136] *See Multi-Radio Service Auction Closes*, Public Notice, 17 FCC Rcd 1446 (WTB 2002).

million size standard.[137] In an auction completed in 2000, a total of 2,800 Economic Area licenses in the lower 80 channels of the 800 MHz SMR service were awarded.[138] Of the 22 winning bidders, 19 claimed small business status and won 129 licenses. Thus, combining all three auctions, 40 winning bidders for geographic licenses in the 800 MHz SMR band claimed status as small business.

62. In addition, there are numerous incumbent site-by-site SMR licensees and licensees with extended implementation authorizations in the 800 and 900 MHz bands. We do not know how many firms provide 800 MHz or 900 MHz geographic area SMR pursuant to extended implementation authorizations, nor how many of these providers have annual revenues of no more than $15 million. One firm has over $15 million in revenues. In addition, we do not know how many of these firms have 1,500 or fewer employees.[139] We assume, for purposes of this analysis, that all of the remaining existing extended implementation authorizations are held by small entities, as that small business size standard is approved by the SBA.

63. **Broadband Radio Service and Educational Broadband Service.** Broadband Radio Service systems, previously referred to as Multipoint Distribution Service ("MDS") and Multichannel Multipoint Distribution Service ("MMDS") systems, and "wireless cable," transmit video programming to subscribers and provide two-way high speed data operations using the microwave frequencies of the Broadband Radio Service ("BRS") and Educational Broadband Service ("EBS") (previously referred to as the Instructional Television Fixed Service ("ITFS")).[140] In connection with the 1996 BRS auction, the Commission established a small business size standard as an entity that had annual average gross revenues of no more than $40 million in the previous three calendar years.[141] The BRS auctions resulted in 67 successful bidders obtaining licensing opportunities for 493 Basic Trading Areas ("BTAs"). Of the 67 auction winners, 61 met the definition of a small business. BRS also includes licensees of stations authorized prior to the auction. At this time, we estimate that of the 61 small business BRS auction winners, 48 remain small business licensees. In addition to the 48 small businesses that hold BTA authorizations, there are approximately 392 incumbent BRS licensees that are considered small entities.[142] After adding the number of small business auction licensees to the number of incumbent licensees not already counted, we find that there are currently approximately 440 BRS licensees that are defined as small businesses under either the SBA or the Commission's rules. The Commission has adopted three levels of bidding credits for BRS: (i) a bidder with attributed average annual gross revenues that exceed $15 million and do not exceed $40 million for the preceding three years (small business) is eligible to receive a 15 percent discount on its winning bid; (ii) a bidder with attributed average annual gross revenues that exceed $3 million and do not exceed $15 million for the preceding three years (very small business) is eligible to receive a 25 percent discount on its winning bid; and (iii) a bidder with attributed

[137] *See "800 MHz Specialized Mobile Radio (SMR) Service General Category (851-854 MHz) and Upper Band (861-865 MHz) Auction Closes; Winning Bidders Announced," Public Notice*, 15 FCC Rcd 17162 (WTB 2000).

[138] *See* "800 MHz SMR Service Lower 80 Channels Auction Closes; Winning Bidders Announced," *Public Notice*, 16 FCC Rcd 1736 (WTB 2000).

[139] *See generally* 13 C.F.R. § 121.201, NAICS code 517210.

[140] *Amendment of Parts 21 and 74 of the Commission's Rules with Regard to Filing Procedures in the Multipoint Distribution Service and in the Instructional Television Fixed Service and Implementation of Section 309(j) of the Communications Act – Competitive Bidding*, MM Docket No. 94-131 and PP Docket No. 93-253, Report and Order, 10 FCC Rcd 9589, 9593 para. 7 (1995).

[141] 47 C.F.R. § 21.961(b)(1).

[142] 47 U.S.C. § 309(j). Hundreds of stations were licensed to incumbent MDS licensees prior to implementation of Section 309(j) of the Communications Act of 1934, 47 U.S.C. § 309(j). For these pre-auction licenses, the applicable standard is SBA's small business size standard.

average annual gross revenues that do not exceed $3 million for the preceding three years (entrepreneur) is eligible to receive a 35 percent discount on its winning bid.[143] In 2009, the Commission conducted Auction 86, which offered 78 BRS licenses.[144] Auction 86 concluded with ten bidders winning 61 licenses.[145] Of the ten, two bidders claimed small business status and won 4 licenses; one bidder claimed very small business status and won three licenses; and two bidders claimed entrepreneur status and won six licenses.

64. In addition, the SBA's Cable Television Distribution Services small business size standard is applicable to EBS. There are presently 2,032 EBS licensees. All but 100 of these licenses are held by educational institutions. Educational institutions are included in this analysis as small entities.[146] Thus, we estimate that at least 1,932 licensees are small businesses. Since 2007, Cable Television Distribution Services have been defined within the broad economic census category of Wired Telecommunications Carriers; that category is defined as follows: "This industry comprises establishments primarily engaged in operating and/or providing access to transmission facilities and infrastructure that they own and/or lease for the transmission of voice, data, text, sound, and video using wired telecommunications networks. Transmission facilities may be based on a single technology or a combination of technologies."[147] The SBA defines a small business size standard for this category as any such firms having 1,500 or fewer employees. The SBA has developed a small business size standard for this category, which is: all such firms having 1,500 or fewer employees. According to Census Bureau data for 2007, there were a total of 955 firms in this previous category that operated for the entire year.[148] Of this total, 939 firms had employment of 999 or fewer employees, and 16 firms had employment of 1000 employees or more.[149] Thus, under this size standard, the majority of firms can be considered small and may be affected by rules adopted pursuant to the Order.

65. **Lower 700 MHz Band Licenses**. The Commission previously adopted criteria for defining three groups of small businesses for purposes of determining their eligibility for special provisions such as bidding credits.[150] The Commission defined a "small business" as an entity that, together with its affiliates and controlling principals, has average gross revenues not exceeding $40 million for the preceding three years.[151] A "very small business" is defined as an entity that, together with

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[143] 47 C.F.R. § 27.1218. *See also* "Auction of Broadband Radio Service (BRS) Licenses, Scheduled for October 27, 2009, Notice and Filing Requirements, Minimum Opening Bids, Upfront Payments, and Other Procedures for Auction 86," *Public Notice*, 24 FCC Rcd 8277, 8296 (WTB 2009) (*Auction 86 Procedures Public Notice*).

[144] *Auction 86 Procedures Public Notice*, 24 FCC Rcd at 8280.

[145] "Auction of Broadband Radio Service Licenses Closes, Winning Bidders Announced for Auction 86, Down Payments Due November 23, 2009, Final Payments Due December 8, 2009, Ten-Day Petition to Deny Period," *Public Notice*, 24 FCC Rcd 13572 (WTB 2009).

[146] The term "small entity" within SBREFA applies to small organizations (nonprofits) and to small governmental jurisdictions (cities, counties, towns, townships, villages, school districts, and special districts with populations of less than 50,000). 5 U.S.C. §§ 601(4)-(6). We do not collect annual revenue data on EBS licensees.

[147] U.S. Census Bureau, 2007 NAICS Definitions, "517110 Wired Telecommunications Carriers" (partial definition); http://www.census.gov/naics/2007/def/ND517110.HTM#N517110.

[148] U.S. Census Bureau, 2007 Economic Census, Subject Series: Information, Table 5, Employment Size of Firms for the United States: 2007, NAICS code 5171102 (issued Nov. 2010).

[149] *See id.*

[150] *See Reallocation and Service Rules for the 698-746 MHz Spectrum Band (Television Channels 52-59)*, GN Docket No. 01-74, Report and Order, 17 FCC Rcd 1022 (2002) (*Channels 52-59 Report and Order*).

[151] *See Channels 52-59 Report and Order*, 17 FCC Rcd at 1087-88 para. 172.

its affiliates and controlling principals, has average gross revenues that are not more than $15 million for the preceding three years.[152] Additionally, the Lower 700 MHz Band had a third category of small business status for Metropolitan/Rural Service Area ("MSA/RSA") licenses, identified as "entrepreneur" and defined as an entity that, together with its affiliates and controlling principals, has average gross revenues that are not more than $3 million for the preceding three years.[153] The SBA approved these small size standards.[154] The Commission conducted an auction in 2002 of 740 Lower 700 MHz Band licenses (one license in each of the 734 MSAs/RSAs and one license in each of the six Economic Area Groupings (EAGs)). Of the 740 licenses available for auction, 484 licenses were sold to 102 winning bidders.[155] Seventy-two of the winning bidders claimed small business, very small business or entrepreneur status and won a total of 329 licenses.[156] The Commission conducted a second Lower 700 MHz Band auction in 2003 that included 256 licenses: 5 EAG licenses and 476 Cellular Market Area licenses.[157] Seventeen winning bidders claimed small or very small business status and won 60 licenses, and nine winning bidders claimed entrepreneur status and won 154 licenses.[158] In 2005, the Commission completed an auction of 5 licenses in the Lower 700 MHz Band, designated Auction 60. There were three winning bidders for five licenses. All three winning bidders claimed small business status.[159]

66. In 2007, the Commission reexamined its rules governing the 700 MHz band in the *700 MHz Second Report and Order.*[160] The *700 MHz Second Report and Order* revised the band plan for the commercial (including Guard Band) and public safety spectrum, adopted services rules, including stringent build-out requirements, an open platform requirement on the C Block, and a requirement on the D Block licensee to construct and operate a nationwide, interoperable wireless broadband network for public safety users.[161] An auction of A, B and E block licenses in the Lower 700 MHz band was held in

[152] *See id.*

[153] *See id.* at 1088 para. 173.

[154] *See Alvarez Letter 1999.*

[155] *See* "Lower 700 MHz Band Auction Closes," *Public Notice*, 17 FCC Rcd 17272 (WTB 2002).

[156] *Id.*

[157] *See* "Lower 700 MHz Band Auction Closes," *Public Notice*, 18 FCC Rcd 11873 (WTB 2003).

[158] *See id.*

[159] "Auction of Lower 700 MHz Band Licenses Closes, Winning Bidders Announced for Auction No. 60, Down Payments due August 19, 2005, FCC Forms 601 and 602 due August 19, 2005, Final Payment due September 2, 2005, Ten-Day Petition to Deny Period," *Public Notice*, 20 FCC Rcd 13424 (WTB 2005).

[160] *Service Rules for the 698-746, 747-762 and 777-792 MHz Band, WT Docket No. 06-150, Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems, CC Docket No. 94-102, Section 68.4(a) of the Commission's Rules Governing Hearing Aid-Compatible Telephone, Biennial Regulatory Review – Amendment of Parts 1, 22, 24, 27, and 90 to Streamline and Harmonize Various Rules Affecting Wireless Radio Services, Former Nextel Communications, Inc. Upper700 MHz Guard Band Licenses and Revisions to Part 27 of the Commission's Rules, Implementing a Nationwide, Broadband Interoperable Public Safety Network in the 700 MHz Band, Development of Operational, Technical and Spectrum Requirements for Meeting Federal, State, and Local Public Safety Communications Requirements Through the Year 2010*, WT Docket Nos. 96-86, 01-309, 03-264, 06-169, PS Docket No. 06-229, *Second Report and Order*, 22 FCC Rcd 15289 (2007) (*700 MHz Second Report and Order*).

[161] Service Rules for the 698-746, 747-762 and 777-792 MHz Band, WT Docket No. 06-150, *Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems,* CC Docket No. 94-102, *Section 68.4(a) of the Commission's Rules Governing Hearing Aid-Compatible Telephone,* WT Docket No. 01-309, *Biennial Regulatory Review – Amendment of Parts 1, 22, 24, 27, and 90 to Streamline and Harmonize Various Rules Affecting Wireless Radio Services,* WT Docket No. 03-264, *Former Nextel Communications, Inc. Upper700* (continued...)

2008.[162] Twenty winning bidders claimed small business status (those with attributable average annual gross revenues that exceed $15 million and do not exceed $40 million for the preceding three years). Thirty three winning bidders claimed very small business status (those with attributable average annual gross revenues that do not exceed $15 million for the preceding three years). In 2011, the Commission conducted Auction 92, which offered 16 Lower 700 MHz band licenses that had been made available in Auction 73 but either remained unsold or were licenses on which a winning bidder defaulted. Two of the seven winning bidders in Auction 92 claimed very small business status, winning a total of four licenses.[163]

67. **Upper 700 MHz Band Licenses.** In the *700 MHz Second Report and Order*, the Commission revised its rules regarding Upper 700 MHz band licenses.[164] In 2008, the Commission conducted Auction 73 in which C and D block licenses in the Upper 700 MHz band were available.[165] Three winning bidders claimed very small business status (those with attributable average annual gross revenues that do not exceed $15 million for the preceding three years).

68. **700 MHz Guard Band Licensees.** In the *700 MHz Guard Band Order*, we adopted a small business size standard for "small businesses" and "very small businesses" for purposes of determining their eligibility for special provisions such as bidding credits and installment payments.[166] A "small business" is an entity that, together with its affiliates and controlling principals, has average gross revenues not exceeding $40 million for the preceding three years.[167] Additionally, a "very small business" is an entity that, together with its affiliates and controlling principals, has average gross revenues that are not more than $15 million for the preceding three years.[168] An auction of 52 Major Economic Area (MEA) licenses commenced on September 6, 2000, and closed on September 21, 2000.[169] Of the 104 licenses auctioned, 96 licenses were sold to nine bidders. Five of these bidders were small businesses that won a total of 26 licenses. A second auction of 700 MHz Guard Band licenses commenced on February 13, 2001 and closed on February 21, 2001. All eight of the licenses auctioned were sold to three bidders. One of these bidders was a small business that won a total of two licenses.[170]

(Continued from previous page)

MHz Guard Band Licenses and Revisions to Part 27 of the Commission's Rules, WT Docket No. 06-169, *Implementing a Nationwide, Broadband Interoperable Public Safety Network in the 700 MHz Band,* PS Docket No. 06-229, *Development of Operational, Technical and Spectrum Requirements for Meeting Federal, State, and Local Public Safety Communications Requirements Through the Year 2010,* WT Docket No. 96-86, Second Report and Order, 22 FCC Rcd 15289 (2007) ("*700 MHz Second Report and Order*").

[162] *See* Auction of 700 MHz Band Licenses Closes, *Public Notice*, 23 FCC Rcd 4572 (WTB 2008).

[163] *See* "Auction of 700 MHz Band Licenses Closes, Winning Bidders Announced for Auction 92, Down Payments and FCC Forms 601 and 602 Due August 11, 2011, Final Payments Due August 25, 2011, Ten-Day Petition to Deny Period," *Public Notice*, 26 FCC Rcd 10,494 (WTB 2011).

[164] 700 MHz Second Report and Order, 22 FCC Rcd 15,289.

[165] *See* Auction of 700 MHz Band Licenses Closes, *Public Notice*, 23 FCC Rcd 4572 (2008).

[166] *See Service Rules for the 746-764 and 776-794 MHz Bands, and Revisions to Part 27 of the Commission's Rules,* WT Docket No. 99-168, Second Report and Order, 15 FCC Rcd 5299 (2000) (*700 MHz Guard Band Order*).

[167] *See id.* at 5343–45 paras. 106–10.

[168] *See id.*

[169] *See* "700 MHz Guard Band Auction Closes," *Public Notice*, 15 FCC Rcd 18026 (2000).

[170] *See* "700 MHz Guard Band Auction Closes," *Public Notice*, 16 FCC Rcd 4590 (2001).

69. **Cellular Radiotelephone Service**. Auction 77 was held to resolve one group of mutually exclusive applications for Cellular Radiotelephone Service licenses for unserved areas in New Mexico.[171] Bidding credits for designated entities were not available in Auction 77.[172] In 2008, the Commission completed the closed auction of one unserved service area in the Cellular Radiotelephone Service, designated as Auction 77. Auction 77 concluded with one provisionally winning bid for the unserved area totaling $25,002.[173]

70. **Private Land Mobile Radio ("PLMR")**. PLMR systems serve an essential role in a range of industrial, business, land transportation, and public safety activities. These radios are used by companies of all sizes operating in all U.S. business categories, and are often used in support of the licensee's primary (non-telecommunications) business operations. For the purpose of determining whether a licensee of a PLMR system is a small business as defined by the SBA, we use the broad census category, Wireless Telecommunications Carriers (except Satellite). This definition provides that a small entity is any such entity employing no more than 1,500 persons.[174] The Commission does not require PLMR licensees to disclose information about number of employees, so the Commission does not have information that could be used to determine how many PLMR licensees constitute small entities under this definition. We note that PLMR licensees generally use the licensed facilities in support of other business activities, and therefore, it would also be helpful to assess PLMR licensees under the standards applied to the particular industry subsector to which the licensee belongs.[175]

71. As of March 2010, there were 424,162 PLMR licensees operating 921,909 transmitters in the PLMR bands below 512 MHz. We note that any entity engaged in a commercial activity is eligible to hold a PLMR license, and that any revised rules in this context could therefore potentially impact small entities covering a great variety of industries.

72. **Rural Radiotelephone Service**. The Commission has not adopted a size standard for small businesses specific to the Rural Radiotelephone Service.[176] A significant subset of the Rural Radiotelephone Service is the Basic Exchange Telephone Radio System ("BETRS").[177] In the present context, we will use the SBA's small business size standard applicable to Wireless Telecommunications Carriers (except Satellite), *i.e.*, an entity employing no more than 1,500 persons.[178] There are approximately 1,000 licensees in the Rural Radiotelephone Service, and the Commission estimates that there are 1,000 or fewer small entity licensees in the Rural Radiotelephone Service that may be affected by the rules and policies proposed herein.

73. **Air-Ground Radiotelephone Service**. The Commission has not adopted a small business size standard specific to the Air-Ground Radiotelephone Service.[179] We will use SBA's small

[171] *See* "Closed Auction of Licenses for Cellular Unserved Service Area Scheduled for June 17, 2008, Notice and Filing Requirements, Minimum Opening Bids, Upfront Payments, and Other Procedures for Auction 77," *Public Notice*, 23 FCC Rcd 6670 (WTB 2008).

[172] *Id.* at 6685.

[173] *See Auction of Cellular Unserved Service Area License Closes, Winning Bidder Announced for Auction 77, Down Payment due July 2, 2008, Final Payment due July 17, 2008*, Public Notice, 23 FCC Rcd 9501 (WTB 2008).

[174] *See* 13 C.F.R. § 121.201, NAICS code 517210.

[175] *See generally* 13 C.F.R. § 121.201.

[176] The service is defined in 47 C.F.R. § 22.99.

[177] BETRS is defined in 47 C.F.R. §§ 22.757 and 22.759.

[178] 13 C.F.R. § 121.201, NAICS code 517210.

[179] *See* 47 C.F.R. § 22.99.

business size standard applicable to Wireless Telecommunications Carriers (except Satellite), *i.e.*, an entity employing no more than 1,500 persons.[180] There are approximately 100 licensees in the Air-Ground Radiotelephone Service, and we estimate that almost all of them qualify as small under the SBA small business size standard and may be affected by rules adopted pursuant to the Order.

74. **Aviation and Marine Radio Services**. Small businesses in the aviation and marine radio services use a very high frequency (VHF) marine or aircraft radio and, as appropriate, an emergency position-indicating radio beacon (and/or radar) or an emergency locator transmitter. The Commission has not developed a small business size standard specifically applicable to these small businesses. For purposes of this analysis, the Commission uses the SBA small business size standard for the category Wireless Telecommunications Carriers (except Satellite), which is 1,500 or fewer employees.[181] Census data for 2007, which supersede data contained in the 2002 Census, show that there were 1,383 firms that operated that year.[182] Of those 1,383, 1,368 had fewer than 100 employees, and 15 firms had more than 100 employees. Most applicants for recreational licenses are individuals. Approximately 581,000 ship station licensees and 131,000 aircraft station licensees operate domestically and are not subject to the radio carriage requirements of any statute or treaty. For purposes of our evaluations in this analysis, we estimate that there are up to approximately 712,000 licensees that are small businesses (or individuals) under the SBA standard. In addition, between December 3, 1998 and December 14, 1998, the Commission held an auction of 42 VHF Public Coast licenses in the 157.1875-157.4500 MHz (ship transmit) and 161.775-162.0125 MHz (coast transmit) bands. For purposes of the auction, the Commission defined a "small" business as an entity that, together with controlling interests and affiliates, has average gross revenues for the preceding three years not to exceed $15 million dollars.[183] In addition, a "very small" business is one that, together with controlling interests and affiliates, has average gross revenues for the preceding three years not to exceed $3 million dollars.[184] There are approximately 10,672 licensees in the Marine Coast Service, and the Commission estimates that almost all of them qualify as "small" businesses under the above special small business size standards and may be affected by rules adopted pursuant to the Order.

75. **Fixed Microwave Services**. Fixed microwave services include common carrier,[185] private operational-fixed,[186] and broadcast auxiliary radio services.[187] At present, there are approximately

[180] *See* 13 C.F.R. § 121.201, NAICS code 517210.

[181] *See* 13 C.F.R. § 121.201, NAICS code 517210.

[182] U.S. Census Bureau, 2007 Economic Census, Sector 51, 2007 NAICS code 517210 (rel. Oct. 20, 2009), http://factfinder.census.gov/servlet/IBQTable?_bm=y&-geo_id=&-fds_name=EC0700A1&-_skip=700&-ds_name=EC0751SSSZ5&-_lang=en.

[183] *See generally Amendment of the Commission's Rules Concerning Maritime Communications*, PR Docket No. 92-257, Third Report and Order and Memorandum Opinion and Order, 13 FCC Rcd 19853, 19884–88 paras. 64–73 (1998).

[184] *See id.*

[185] *See* 47 C.F.R. §§ 101 *et seq.* (formerly, Part 21 of the Commission's Rules) for common carrier fixed microwave services (except Multipoint Distribution Service).

[186] Persons eligible under parts 80 and 90 of the Commission's Rules can use Private Operational-Fixed Microwave services. *See* 47 C.F.R. Parts 80 and 90. Stations in this service are called operational-fixed to distinguish them from common carrier and public fixed stations. Only the licensee may use the operational-fixed station, and only for communications related to the licensee's commercial, industrial, or safety operations.

[187] Auxiliary Microwave Service is governed by Part 74 of Title 47 of the Commission's Rules. *See* 47 C.F.R. Part 74. This service is available to licensees of broadcast stations and to broadcast and cable network entities. (continued...)

22,015 common carrier fixed licensees and 61,670 private operational-fixed licensees and broadcast auxiliary radio licensees in the microwave services. The Commission has not created a size standard for a small business specifically with respect to fixed microwave services. For purposes of this analysis, the Commission uses the SBA small business size standard for Wireless Telecommunications Carriers (except Satellite), which is 1,500 or fewer employees.[188] The Commission does not have data specifying the number of these licensees that have more than 1,500 employees, and thus is unable at this time to estimate with greater precision the number of fixed microwave service licensees that would qualify as small business concerns under the SBA's small business size standard. Consequently, the Commission estimates that there are up to 22,015 common carrier fixed licensees and up to 61,670 private operational-fixed licensees and broadcast auxiliary radio licensees in the microwave services that may be small and may be affected by the rules and policies adopted herein. We note, however, that the common carrier microwave fixed licensee category includes some large entities.

76. **Offshore Radiotelephone Service**. This service operates on several UHF television broadcast channels that are not used for television broadcasting in the coastal areas of states bordering the Gulf of Mexico.[189] There are presently approximately 55 licensees in this service. The Commission is unable to estimate at this time the number of licensees that would qualify as small under the SBA's small business size standard for the category of Wireless Telecommunications Carriers (except Satellite). Under that SBA small business size standard, a business is small if it has 1,500 or fewer employees.[190] Census data for 2007, which supersede data contained in the 2002 Census, show that there were 1,383 firms that operated that year.[191] Of those 1,383, 1,368 had fewer than 100 employees, and 15 firms had more than 100 employees. Thus, under this category and the associated small business size standard, the majority of firms can be considered small.

77. **39 GHz Service**. The Commission created a special small business size standard for 39 GHz licenses – an entity that has average gross revenues of $40 million or less in the three previous calendar years.[192] An additional size standard for "very small business" is: an entity that, together with affiliates, has average gross revenues of not more than $15 million for the preceding three calendar years.[193] The SBA has approved these small business size standards.[194] The auction of the 2,173 39 GHz licenses began on April 12, 2000 and closed on May 8, 2000. The 18 bidders who claimed small business status won 849 licenses. Consequently, the Commission estimates that 18 or fewer 39 GHz licensees are small entities that may be affected by rules adopted pursuant to the Order.

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Broadcast auxiliary microwave stations are used for relaying broadcast television signals from the studio to the transmitter, or between two points such as a main studio and an auxiliary studio. The service also includes mobile television pickups, which relay signals from a remote location back to the studio.

[188] *See* 13 C.F.R. § 121.201, NAICS code 517210.

[189] This service is governed by Subpart I of Part 22 of the Commission's Rules. *See* 47 C.F.R. §§ 22.1001-22.1037.

[190] *Id.*

[191] U.S. Census Bureau, 2007 Economic Census, Sector 51, 2007 NAICS code 517210 (rel. Oct. 20, 2009), http://factfinder.census.gov/servlet/IBQTable?_bm=y&-geo_id=&-fds_name=EC0700A1&-_skip=700&-ds_name=EC0751SSSZ5&-_lang=en.

[192] *See Amendment of the Commission's Rules Regarding the 37.0-38.6 GHz and 38.6-40.0 GHz Bands*, ET Docket No. 95-183, PP Docket No. 93-253, Report and Order, 12 FCC Rcd 18600, 18661–64, paras. 149–151 (1997).

[193] *See id.*

[194] *See* Letter to Kathleen O'Brien Ham, Chief, Auctions and Industry Analysis Division, Wireless Telecommunications Bureau, FCC, from Aida Alvarez, Administrator, SBA (Feb. 4, 1998).

78. **Local Multipoint Distribution Service.** Local Multipoint Distribution Service ("LMDS") is a fixed broadband point-to-multipoint microwave service that provides for two-way video telecommunications.[195] The auction of the 986 LMDS licenses began and closed in 1998. The Commission established a small business size standard for LMDS licenses as an entity that has average gross revenues of less than $40 million in the three previous calendar years.[196] An additional small business size standard for "very small business" was added as an entity that, together with its affiliates, has average gross revenues of not more than $15 million for the preceding three calendar years.[197] The SBA has approved these small business size standards in the context of LMDS auctions.[198] There were 93 winning bidders that qualified as small entities in the LMDS auctions. A total of 93 small and very small business bidders won approximately 277 A Block licenses and 387 B Block licenses. In 1999, the Commission re-auctioned 161 licenses; there were 32 small and very small businesses winning that won 119 licenses.

79. **218-219 MHz Service.** The first auction of 218-219 MHz spectrum resulted in 170 entities winning licenses for 594 Metropolitan Statistical Area (MSA) licenses. Of the 594 licenses, 557 were won by entities qualifying as a small business. For that auction, the small business size standard was an entity that, together with its affiliates, has no more than a $6 million net worth and, after federal income taxes (excluding any carry over losses), has no more than $2 million in annual profits each year for the previous two years.[199] In the *218-219 MHz Report and Order and Memorandum Opinion and Order*, we established a small business size standard for a "small business" as an entity that, together with its affiliates and persons or entities that hold interests in such an entity and their affiliates, has average annual gross revenues not to exceed $15 million for the preceding three years.[200] A "very small business" is defined as an entity that, together with its affiliates and persons or entities that hold interests in such an entity and its affiliates, has average annual gross revenues not to exceed $3 million for the preceding three years.[201] These size standards will be used in future auctions of 218-219 MHz spectrum.

80. **2.3 GHz Wireless Communications Services.** This service can be used for fixed, mobile, radiolocation, and digital audio broadcasting satellite uses. The Commission defined "small business" for the wireless communications services ("WCS") auction as an entity with average gross revenues of $40 million for each of the three preceding years, and a "very small business" as an entity with average gross revenues of $15 million for each of the three preceding years.[202] The SBA has

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[195] *See Rulemaking to Amend Parts 1, 2, 21, 25, of the Commission's Rules to Redesignate the 27.5-29.5 GHz Frequency Band, Reallocate the 29.5-30.5 Frequency Band, to Establish Rules and Policies for Local Multipoint Distribution Service and for Fixed Satellite Services*, CC Docket No. 92-297, Second Report and Order, Order on Reconsideration, and Fifth Notice of Proposed Rule Making, 12 FCC Rcd 12545, 12689-90, para. 348 (1997) ("*LMDS Second Report and Order*").

[196] *See LMDS Second Report and Order*, 12 FCC Rcd at 12689-90, para. 348.

[197] *See id.*

[198] *See Alvarez to Phythyon Letter 1998.*

[199] *See generally Implementation of Section 309(j) of the Communications Act – Competitive Bidding*, PP Docket No. 93-253, Fourth Report and Order, 9 FCC Rcd 2330 (1994).

[200] *See generally Amendment of Part 95 of the Commission's Rules to Provide Regulatory Flexibility in the 218-219 MHz Service*, WT Docket No. 98-169, Report and Order and Memorandum Opinion and Order, 15 FCC Rcd 1497 (1999).

[201] *See id.*

[202] *Amendment of the Commission's Rules to Establish Part 27, the Wireless Communications Service (WCS)*, GN Docket No. 96-228, Report and Order, 12 FCC Rcd 10785, 10879 para. 194 (1997).

approved these definitions.[203] The Commission auctioned geographic area licenses in the WCS service. In the auction, which was conducted in 1997, there were seven bidders that won 31 licenses that qualified as very small business entities, and one bidder that won one license that qualified as a small business entity.

81. **1670-1675 MHz Band.** An auction for one license in the 1670-1675 MHz band was conducted in 2003. The Commission defined a "small business" as an entity with attributable average annual gross revenues of not more than $40 million for the preceding three years and thus would be eligible for a 15 percent discount on its winning bid for the 1670-1675 MHz band license. Further, the Commission defined a "very small business" as an entity with attributable average annual gross revenues of not more than $15 million for the preceding three years and thus would be eligible to receive a 25 percent discount on its winning bid for the 1670-1675 MHz band license. One license was awarded. The winning bidder was not a small entity.

82. **3650–3700 MHz band.** In March 2005, the Commission released a *Report and Order and Memorandum Opinion and Order* that provides for nationwide, non-exclusive licensing of terrestrial operations, utilizing contention-based technologies, in the 3650 MHz band (*i.e.*, 3650–3700 MHz).[204] As of April 2010, more than 1270 licenses have been granted and more than 7433 sites have been registered. The Commission has not developed a definition of small entities applicable to 3650–3700 MHz band nationwide, non-exclusive licensees. However, we estimate that the majority of these licensees are Internet Access Service Providers (ISPs) and that most of those licensees are small businesses.

83. **24 GHz – Incumbent Licensees.** This analysis may affect incumbent licensees who were relocated to the 24 GHz band from the 18 GHz band, and applicants who wish to provide services in the 24 GHz band. For this service, the Commission uses the SBA small business size standard for the category "Wireless Telecommunications Carriers (except satellite)," which is 1,500 or fewer employees.[205] To gauge small business prevalence for these cable services we must, however, use the most current census data. Census data for 2007, which supersede data contained in the 2002 Census, show that there were 1,383 firms that operated that year.[206] Of those 1,383, 1,368 had fewer than 100 employees, and 15 firms had more than 100 employees. Thus under this category and the associated small business size standard, the majority of firms can be considered small. The Commission notes that the Census' use of the classifications "firms" does not track the number of "licenses". The Commission believes that there are only two licensees in the 24 GHz band that were relocated from the 18 GHz band, Teligent[207] and TRW, Inc. It is our understanding that Teligent and its related companies have less than 1,500 employees, though this may change in the future. TRW is not a small entity. Thus, only one incumbent licensee in the 24 GHz band is a small business entity.

84. **24 GHz – Future Licensees.** With respect to new applicants in the 24 GHz band, the size standard for "small business" is an entity that, together with controlling interests and affiliates, has

[203] *See* Letter from Aida Alvarez, Administrator, SBA, to Amy Zoslov, Chief, Auctions and Industry Analysis Division, Wireless Telecommunications Bureau, FCC (Dec. 2, 1998) (*Alvarez Letter 1998*).

[204] The service is defined in section 90.1301 *et seq.* of the Commission's Rules, 47 C.F.R. § 90.1301 *et seq.*

[205] 13 C.F.R. § 121.201, NAICS code 517210.

[206] U.S. Census Bureau, 2007 Economic Census, Sector 51, 2007 NAICS code 517210 (rel. Oct. 20, 2009), http://factfinder.census.gov/servlet/IBQTable?_bm=y&-geo_id=&-fds_name=EC0700A1&-_skip=700&-ds_name=EC0751SSSZ5&-_lang=en.

[207] Teligent acquired the DEMS licenses of FirstMark, the only licensee other than TRW in the 24 GHz band whose license has been modified to require relocation to the 24 GHz band.